

Second Preliminary Amendment

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Applicant(s): Lawrence P. WACKETT et al.

Serial No.: 09/866,307

Filed: 25 May 2001

For: DNA MOLECULES AND PROTEIN DISPLAYING IMPROVED TRIAZINE COMPOUND DEGRADING ABILITY

Remarks

The above amendments were made simply to correct typographical and grammatical errors. No new matter has been added as a result of these amendments.

Conclusion

The Examiner is invited to contact Applicants' Representatives at the below-listed telephone number, if there are any questions regarding this Preliminary Amendment or if prosecution of this application may be assisted thereby.

<p>CERTIFICATE UNDER 37 C.F.R. 1.10:</p> <p>"Express Mail" mailing label number: <u>EV 073 733 37 US</u></p> <p>The undersigned hereby certifies that this paper is being deposited in the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR §1.10 addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on this <u>23</u> day of August, 2001.</p> <p><i>Katie Muetting</i> By: <i>Katie Muetting</i></p>
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Respectfully submitted for

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APPENDIX A
SPECIFICATION AMENDMENTS
INCLUDING NOTATIONS TO INDICATE CHANGES MADE
Serial No.: 09/866,307
Docket No.: 110.0044 0102

Amendments to the following are indicated by underlining what has been added and bracketing what has been deleted. Additionally, all amendments have been bolded.

In the Specification

The paragraph at page 1, lines 5-7, has been amended as follows:

This invention was made with government support from the United States Department of Agriculture-BARD program, Grant No. ~~[94-34339-112]~~ 94-34339-1122. The government may have certain rights in this invention.

The paragraph at page 6, lines 4-15, has been amended as follows:

In another aspect of this invention, the invention relates to a DNA fragment having a portion of its nucleic acid sequence having at least 95% homology to a nucleic acid sequence consisting of position 236 and ending at position 1655 of SEQ ID NO:1, wherein the DNA fragment is capable of hybridizing under stringent conditions to SEQ ID NO:1 and wherein there is at least one amino acid change in the protein encoded by the DNA fragment as compared with SEQ ID NO:2 and wherein the protein encoded by the DNA fragment is capable of dechlorinating at least one *s*-triazine-containing compound and has a catalytic activity different from the enzymatic activity of the protein of SEQ ID NO:2. In one embodiment the *s*-triazine-containing compound is ATRAZINE, TERBUTHYLAZINE, or MELAMINE. **[In one embodiment.]**

The paragraph at page 6, lines 16-31, has been amended as follows:

The invention also relates to a method for treating a sample comprising an *s*-triazine containing compound comprising the step of adding a **[adding a]** protein to a sample comprising an *s*-triazine-containing compound wherein the protein is encoded by a gene having at least a portion of the nucleic acid sequence of the gene having at least 95% homology to the sequence beginning at position 236 and ending at position 1655 of SEQ ID NO:1, wherein the gene is capable of hybridizing under stringent conditions to SEQ ID NO:1, wherein there is at least one amino acid change in the protein encoded by the DNA fragment as compared with SEQ ID NO:2 and wherein the protein has an altered catalytic activity as compared to the protein having the amino acid sequence of SEQ ID NO:2. In one embodiment, the composition comprises bacteria expressing the protein. In one embodiment the *s*-triazine -containing compound is atrazine, in another the *s*-triazine-containing compound is TERBUTHYLAZINE and in another the *s*-triazine containing compound is (2,4,6-triamino-*s*-triazine). In one embodiment, the protein encoded by the gene is selected from the group consisting of SEQ ID NOS: 5, 6 and 22-26.